

WHAT IS CLAIMED IS:

1. A method for fabricating a BiCMOS transistor, comprising the steps of:

forming a field oxide film for device isolation and a buried oxide film on a semiconductor substrate;

forming a well where a MOS transistor is to be formed and a collector of a bipolar transistor on the semiconductor substrate;

forming a gate insulating film on the semiconductor substrate;

forming a gate electrode of the MOS transistor and an external base of the bipolar transistor on the gate insulating film;

forming a nitride film for a spacer on the resultant material;

removing the nitride film for the spacer in the bipolar transistor region;

selectively forming a silicon layer and a polysilicon layer in the bipolar transistor region;

forming an insulating film on the polysilicon layer;

forming a spacer on the sides of the gate electrode of the MOS transistor and on the sides of the external base of the bipolar transistor;  
and

forming a source/drain of the MOS transistor.

2. The method of claim 1, wherein the step of selectively forming a silicon layer and a polysilicon layer is carried out by a selective epitaxial growth method.

3. The method of claim 2, wherein, when the selective epitaxial growth process is carried out, high concentration impurities are added.

4. The method of claim 1, wherein, in the step of removing the nitride film for the spacer in the bipolar transistor region, the gate insulating film formed below the external base is also completely removed.